

Datasheet for 610-1307**Mouse IgM (mu chain) Antibody Peroxidase Conjugated****Overview**

Description:	Goat Anti-Mouse IgM (mu chain) Antibody Peroxidase Conjugated - 610-1307
Item No.:	610-1307
Size:	1 mg
Applications:	ELISA, IHC, WB
Reactivity:	Mouse
Host Species:	Goat

Product Details

Background:	Anti-Mouse IgM (mu chain) peroxidase conjugated antibody generated in goat detects specifically mouse IgM. Immunoglobulin M is the largest antibody isotype and the first to be secreted against an initial exposure to antigen. IgM is predominantly produced in the spleen. Formed from covalently linking 5 immunoglobulins together, the approximate molecular weight of IgM is 900kDa and possesses 10 binding sites (though due to the size of most antigens, not all sites are capable of binding at once). Due to this large size, IgM is typically isolated to the serum. Anti-Mouse IgM antibody is ideal for investigators in Immunology, Microbiology, and Cell Biology.
Synonyms:	goat anti-Mouse IgM (Mu Chain) Peroxidase Conjugated Antibody, goat anti-Mouse IgM Mu Chain Antibody HRP Conjugation
Host Species:	Goat
Specificity:	IgM μ chain
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Mouse
Immunogen Type:	Native Protein

Immunogen:	Mouse IgM whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Mouse IgM coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum, Mouse IgM and Mouse Serum. No reaction was observed against other mouse heavy or light chain proteins.

Application Details

Suggested Applications:	ELISA, IHC, WB (Based on references)
Application Note:	Mouse IgM (mu chain) peroxidase conjugated Antibody is suitable for immunoblotting (western or dot blot), ELISA, immunoperoxidase electron microscopy and immunohistochemistry as well as other peroxidase-antibody based enzymatic assays requiring extremely low background levels, lot-to-lot consistency, high titer and specificity.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:30,000
IHC:	1:500 - 1:2,000
WB:	1:1,000 - 1:5,000

Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

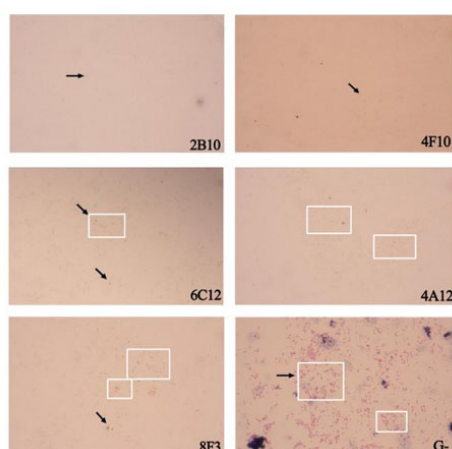
Shipping & Handling

Shipping Condition:	Ambient
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Storage Condition: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunocytochemistry

Immunochemical Staining using Goat Anti-Mouse IgM HRP. Identification of intact *B. melitensis* strain by ICS with mAbs. The intact bacteria of *B. melitensis* strain were stained by ICS with individual mAbs. Saturated with goat anti-mouse IgG and IgM HRP conjugate. Bacteria were visualized with diaminobenzidine (DAB) substrate for color development. G-, Gram staining for bacterial control of *B. melitensis* strain examined under white light with a microbiological microscope.

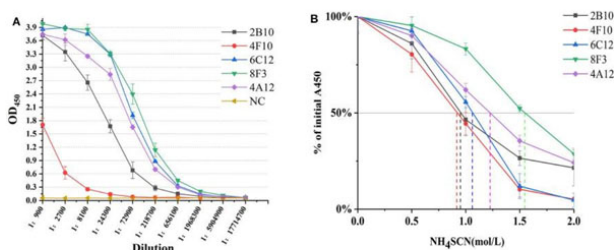
Figure S2. PMID: 32373546.

ELISA

ELISA results using Goat Anti-Mouse IgM HRP.

Determination of mAb titer and affinity. (A) Titration of mAb by an indirect ELISA. The mAb was serially diluted in 1:3. The optimum working concentration was determined for a midpoint of the steep portion of the curve. (B) The measurement of antibody relative affinity by thiocyanate elution assay. The affinity index was estimated by the molarity of NH_4SCN causing 50% reduction from initial absorbance in the elution curves. All experiments were carried out in triplicate and the results were calculated from three independent experiments.

Figure 2. PMID: 32373546.



References

- Yang X, He Z, Zhang G, et al. Evaluation of Reactivity of Monoclonal Antibodies Against Omp25 of *Brucella* spp. *Front Cell Infect Microbiol.* (2020)
- Zhang T et al. Genetic Removal of the CH1 Exon Enables the Production of Heavy Chain-Only IgG in Mice. *Front Immunol.* (2018)
- Poppenborg SM et al. Impact of anti-PEG IgM antibodies on the pharmacokinetics of pegylated asparaginase preparations in mice. *Eur J Pharm Sci.* (2016)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.